

SIEMENS

MAMMOMAT 3000

SP

Service

Installation Instructions

Replacing/upgrading/updating SW to version V2.2

Kit part No. 62 98 769 or
62 98 868

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Print No.: SPB7-230.031.12.01.02

Replaces:

English

Doc. Gen. Date: 12.98

65 19 909

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General

Software V2.2 is valid for all MAMMOMAT 3000 units. See step 7 in section "Installing V2.2" for requirements for older machines.

- All 15° stereo angles are calibrated with measured values. As before, the end values +135° and -180° as well as preset angle 0° and 90° can be calibrated. The function keys <F1> - <F4> have the same functions as in the previous versions.
- Density correction is provided in 1/4 E.P. steps on the control panel.
- The real time clock in the MAMMOMAT 3000 can be set to years after 1999 (year 2000 is shown as 00).

Note that the angle detector, D806 and its signal ROT_POS are not used by software V2.2. It does not need to be removed or disconnected.

Parts included

The spare part kit 62 98 769 and update kit 62 98 868 comprises the following parts:

Amount	Part No.	Name	SW-version
1	64 47 184	Generator PROMs	2.2
1	64 47 176	Stand PROM	2.2
1	64 47 275	Service Program	2.2
1	65 19 909	Installation Instruction (this document)	-
1	65 02 319	Labels	-
1	65 02 327	Labels	-

Documents required

Wiring Diagrams, MAMMOMAT 3000

Installation and Start-Up Instructions, MAMMOMAT 3000

Service Program, MAMMOMAT 3000

Instructions for use, MAMMOMAT 3000

Tools required

Standard tool kit, ESD tools

Service PC (e.g. Siemens Nixdorf PCD3-NSX/20 or similar) with connecting cable (PC-Generator), part no. 99 00 440 RE999.

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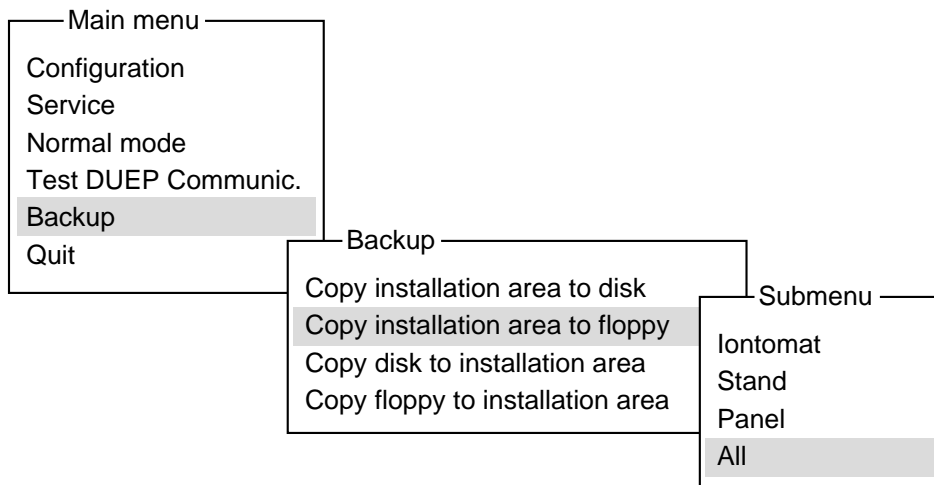
Installing V2.2

NOTE

When replacing the software V2.1 or V2.2, only steps 1, 2, 7, 8 and 12-17, need to be done. If upgrading from V2.1, check the automatic transparency adaption and OPDOSE. See Installation and Start-up instructions, MAMMOMAT 3000.

1. Mains and system OFF.
2. Remove the front cover from the generator and the right rear / rear cover from the stand, see Installation and Start-Up Instructions, MAMMOMAT 3000.
3. Connect the service PC with connecting cable to p.c. board in the generator. **Use port COM 1 on the service PC.**
4. Mains, system and service PC ON.
 - After initialization, the service PC shows: **C:\>**.
 - Now insert the disk with the service program currently in use with the MAMMOMAT.
 - Select drive A: and then press <ENTER>.
 - The screen shows: **A:\>**.
 - Start the service program by typing 'service', then press <ENTER>.
 - The program asks for the user's name: **Your name, please**
 - Type the name of the technician, for example NN, and then press <ENTER>.
 - The program asks for the password: **Password, please**
 - Type the password (*****) and then press <ENTER>.
 - The display window shows: **Mode Normal**, press <ENTER>.
 - The display window shows: **Main menu**.
 - Select the program part to be used with keys <↑> and/or <↓>, then press <ENTER>.
 - The program part selected is shown with a background: **Configuration**.
 - If necessary, additional subroutines can be similarly selected here.

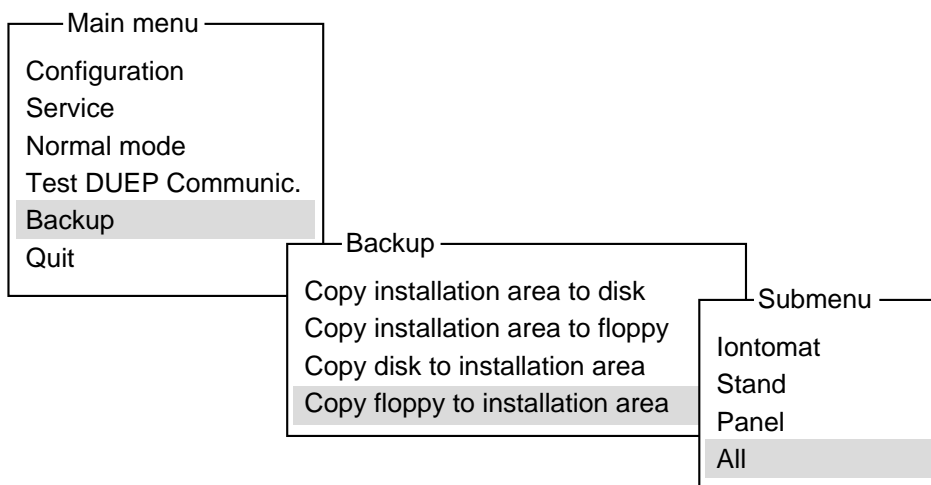
5. Perform a Backup, Copy installation area to floppy, All.



MAM00247

Fig. 1

6. Mains and system OFF.
7. Exchange the prompts on D701 (J113), D702 (J39, units with S/N lower than 3242 must have D702 replaced with 64 21 288), D740 (I10) in the generator and D801 (I9) in the stand. If upgrading from software version lower than V1.5 the AEC must be upgraded, see UI 001/96 (with software V2.2). It may be necessary to reverse the polarity of the stereo lever switch in units with S/N lower than 2056. Move the blue wire from pin 3 to pin 2.
8. Mains and system ON. Pay no attention to errors shown on the control panel caused by the software change (ER 859) at this time.
9. Recover the data saved in step 5 by performing a Backup, Copy floppy to installation area, All.



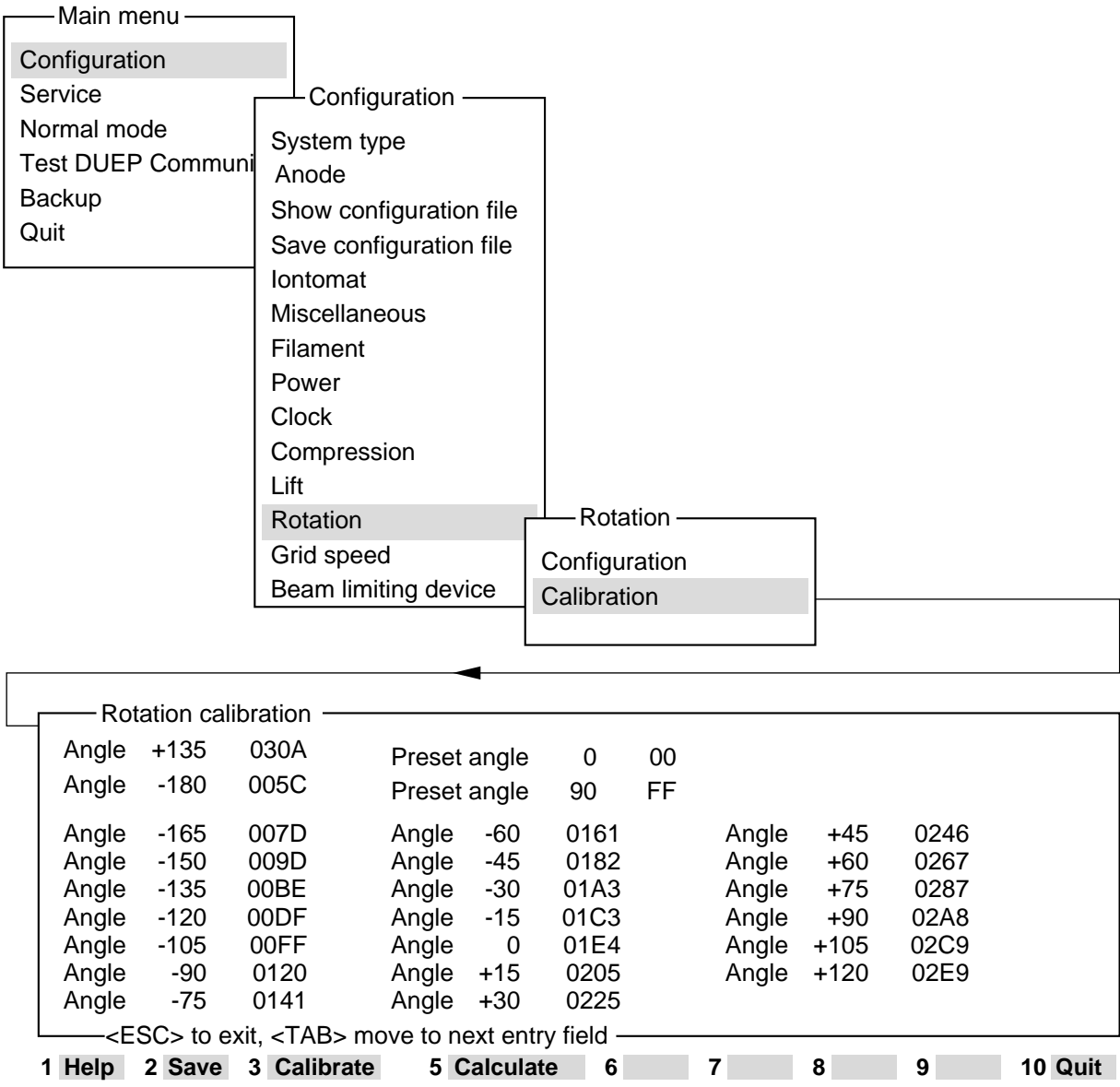
MAM00248

Fig. 2

NOTE

Do not change the service program version before this retrieval has been done.

10. Quit the service program by pressing <F10>. Insert the service disk V2.2 and type service to start the program as above (step 4). Select the rotation calibration display as shown in Fig. 3.



MAM00070

Fig. 3

- <F1> Displays a help text.
- <F2> Saves the values from the entry fields in the stand electronics.
- <F3> Measures the value for the highlighted entry field.
- <F4> Enters the measured value in the entry field.
- <F5> Calculates theoretical values for all 15° steps from -165° to +120° based on the values in the -180° and +135° entry fields.

NOTE

<F4> must be pressed after <F5> and prior to <F2> in order to save the calculated values.

11. Calibrate the rotation angles as described below:

Preset Angle 0°

Highlight the entry field, set the preset angle potentiometer to minimum (fully counter-clockwise) and calibrate with <F3>, <F4>. Save with <F2>.

Preset Angle 90°

Highlight the entry field, set the preset angle potentiometer to maximum (fully clockwise) and calibrate with <F3>, <F4>. Save with <F2>.

Preparation for angle calibration

Prior to calibrating the angles, highlight +135° and enter 03FF, highlight -180° and enter 0000, press <F5> followed by <F4>. Save with <F2>.

Angle +135°

Highlight +135°. Run the rotation motor to approx. +135° (near the CW stop) and move the stereo lever fully to stereo position. If necessary, rotate the head slightly with the motor until the lever can be fully engaged. Rotate the head upwards (towards 0°) to the stereo stop and back to the centre position until it stops. Calibrate the value with <F3> followed by <F4>. Move the stereo lever back to normal mode.

Angle -180°

Highlight -180°. Run the rotation motor to approx. -180° (near the CCW stop) and move the stereo lever fully to stereo position. If necessary, rotate the head slightly until the lever can be fully engaged. Rotate the head upwards (towards 0°) to the stereo stop and back to the centre position until it stops. Calibrate the value with <F3> followed by <F4>. Move the stereo lever back to normal mode.

Angle -165° to +120°

Press <F5> followed by <F4> to recalculate approximate values for the angles prior to calibration of the remaining angles. Save with <F2>.

Highlight -165°. Run the rotation motor to approx. -165° and move the stereo lever fully to stereo position. If necessary, rotate the head slightly until the lever can be fully engaged. Rotate the head upwards (towards 0°) to the stereo stop and back to the centre position until it stops. Calibrate the value with <F3> followed by <F4>.

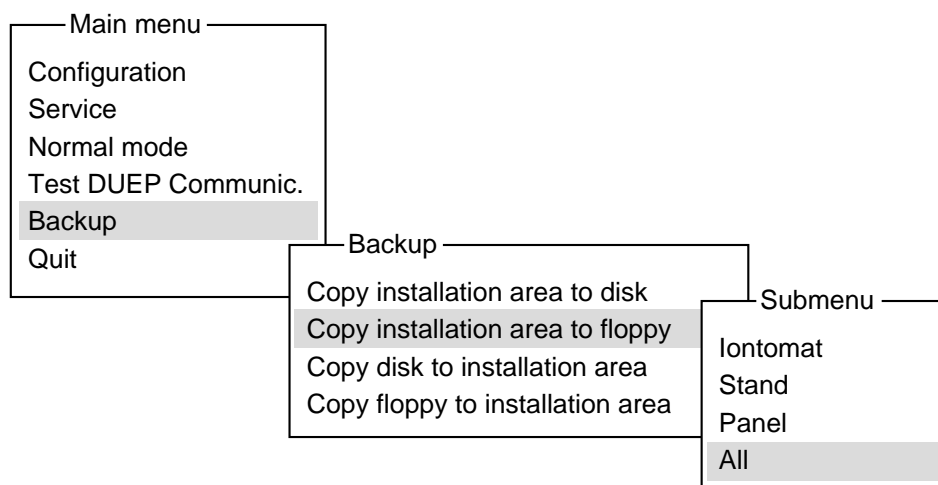
Move the stereo lever back to normal mode and run the rotation motor to the next position, -150°. Highlight -150° and calibrate as above. Calibrate all the remaining values in the table in the same manner. It is sufficient to calibrate each value with <F3>, <F4> and save all the values afterwards with <F2>.

Check 0° and all 15° steps from 0° to ±90° for proper stereo lever operation by setting the preset angle control to 15°, 30°, etc and running the rotation motor to both plus and minus angles. 0° is checked by allowing the head to stop when going from positiv angle values to negativ angle values and vice-versa. Recalibrate any angle which needs improvement by highlighting it and calibrating as above. Remember to save <F2> after performing a recalibration.

NOTE

The angles must be reprogrammed if the tube angle pot. R803, or the CPU D801 is changed.

12. Acknowledge any errors caused by the software change with the Lim button on the control panel. Check that the motorized movements function properly, see Installation and Start-Up instruction, MAMMOMAT 3000.
13. Make an AEC exposure, see Instructions for use, MAMMOMAT 3000.
14. Perform a Backup, Copy installation area to floppy, All, using service program V2.2.



MAM00249

Fig. 4

15. Mains and system OFF.
16. Disconnect the service PC.
17. Reinstall the generator and stand covers.
18. Affix the two labels in the document *"Instruction for use"*:
 - Chapter *"Design and Function"*, section *"Control Panel, Control buttons and Indicators"*, attach the sticker over the text *"± film density adjustment and display"*. Labels art. no. 65 02 327.
 - Chapter *"Technical Specification"*, section *"Technical data, Automatic exposure control"* attach the sticker over the line(s) *"Density correction"*. Labels art. no. 65 02 319.

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